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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/432,334	11/02/1999	RONALD A. GUIDOTTI	98-2069	9910

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EXAMINER

MAPLES, JOHN S

ART UNIT

PAPER NUMBER

1745

DATE MAILED: 10/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/432,334

Applicant(s)

GUIDOTTI ET AL.

Examiner

John S. Maples

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21,24-28 and 41-49 ~~is/are~~ are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21,24-28 and 41-49 ~~is/are~~ are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

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1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 21, 24-28, 41-49 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicants regard as their invention. (New Rejection)

Evidence that claims 21, 24-28, 41-49 fail to correspond in scope with that which applicants regard as the invention can be found in both the recent amendment (Paper No. 19) and in the Declaration filed as Paper No. 20 filed June 26, 2002. In both Papers 19 and 20, applicant has stated that a protective coating such as elemental sulfur is necessary to produce the claimed product, and this statement indicates that the invention is different from what is defined in the claims because the claims do not require the protective coating.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 21, 24-28 and 41-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Muffoletto et al. (Muffoletto)

See claims 1 and 7 in the patent to Muffoletto. It is inherent that with the thickness of the active material being 0.001 inch (25 microns) that the particle size would be within the microstructured size range as claimed in claim 27.

Applicant's arguments have all been considered but are not deemed persuasive.

Applicant argues that Muffoletto does not provide an enabling disclosure for an electrode including a metal sulfide, metal selenide or a metal telluride produced by thermal spray. The

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patent to Muffoletto discloses pyrite in claims 1 and 7 so that their production is evidenced. As column 6, lines 8-14 states, these materials are made by a thermal spray coating process.

Applicant further states that these materials would decompose at thermal spray temperatures and, in the example for pyrite, result in forming primarily Fe_2O_3 . This may be true to an extent, however, in any event, some pyrite would be formed because other oxides are formed in the above process. The material pyrite would be one of them.

A further argument by applicant is that evidence by the Declaration of Dr. Xiao states that in the process of Muffoletto, Fe_2O_3 is primarily formed. This may be true, however again some pyrite is formed and this amount would meet the claimed subject matter.

Applicant argues that a protective coating is required on the active material to avoid decomposition. Again, this may be true, however applicant has not included this language in the claimed subject matter.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 21, 28, 41, 44, 45 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muffoletto in view of Gay.

Muffoletto does not specifically teach a nanostructured iron sulfide. Gay discloses a nanostructured iron sulfide in example 1 of this patent. To utilize in the teachings of Muffoletto the 15 nanometer particle size of Gay would have been obvious to one of ordinary skill in this art at the time the invention was made so that the active material would have been packed more tightly and would have produced a greater power output.

Applicant argues that Gay cannot be used a sole reference. The examiner did not apply Gay by itself but combined it with the teachings of Muffoletto.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John S. Maples whose telephone number is 703-308-1795. The examiner can normally be reached on Monday-Thursday and on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 703-308-2383. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



John S. Maples
Primary Examiner
Art Unit 1745

JSM
October 8, 2002